

Call-for-Papers

24th International Conference On ADVANCED VEHICLE TECHNOLOGIES

2022 ASME International Design Engineering Technical Conference (IDETC)

St Louis, Missouri August 14-17, 2022

Sponsored by: Vehicle Design Committee

Technical Research Areas: The Vehicle Design Committee (VDC) of the ASME Design Engineering Division (DED) is organizing an annual International Conference on Advanced Vehicle Technologies (AVT). Papers are invited on innovative analytical, computational, and experimental investigations in the design of full vehicle systems and their sub-systems, as well as on studies for safety and ergonomics, powertrains, alternative fuels, and intelligent transportation systems. Papers may address fundamental research, applied research, or successful implementations relating to light or heavy vehicle modeling, design, control, testing, or development.

<p><u>Conference Chair:</u> Costin Untaroiu Virginia Tech Department of Biomedical Engineering and Mechanics Email: costin@vt.edu</p> <p><u>Conference Co-Chair:</u> Luis Munoz Universidad de los Andes Department of Mechanical Engineering Bogota, Colombia Email: lui-muno@uniandes.edu.co</p>	<p><u>Program Chair:</u> TBD</p>
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Symposium 1: Advances in Ground Vehicles Dynamics and Controls

Topics include advanced modeling methods and controls of multi-physics systems and multi-body dynamics, experimental evaluation and model validation tests, and advanced analytical and computational methods. Papers in the general area of dynamics and controls applications to vehicle systems and subsystems are welcome, including engine and transmissions, passive and controlled driveline and torque vectoring systems, ABS systems, active and semi-active suspension, intelligent rollover warning systems, active yaw control systems, emission control, vehicle drivability, intelligent transportation systems, and advanced propulsion control systems.

Organizer: **Corina Sandu:** csandu@vt.edu
Virginia Tech

Co-Organizer: **Siyuan (Hunter) Zhang:** zsy1010@uab.edu
University of Alabama at Birmingham

Co-Organizer: **Vladimir V. Vantsevich:** vantsevi@uab.edu
University of Alabama at Birmingham

Symposium 2: Advances in Modelling and Testing of Tires and Tire-Terrain Interaction

Topics relate to analytical, numerical, experimental studies of nonlinear behavior of tires and wheels including, but not limited to static/dynamic stress analysis, nonlinear material modeling, contact stress, impact, noise, vibration, traction, hydroplaning, performance evaluation, rolling resistance, handling, and durability. Tires of all sizes are of interest, for both on-road and off-road applications.

Organizer: **Hoda Mousavi:** hoda13@vt.edu
Virginia Tech

Co-Organizer: **Lin Li:** lin.li@liebherr.com
Liebherr Mining Equipment

Co-Organizer: **Mostafa Yacoub:** mostafa.yacoub@mtc.edu.eg
Military Technical College, Cairo, Egypt

Symposium 3: Advances in Methods for Ground Vehicle Systems Design

Topics refer to optimal, reliable, and robust design of vehicles and their subsystems, including, but not limited to design of suspension systems, powertrain design, braking systems designs, integrated (mechatronics) systems development, and engineering applications referring to vehicle design.

Organizer: **Massimiliano Gobbi:** massimiliano.gobbi@polimi.it
Politecnico di Milano (Technical University), Italy

Co-Organizer: **Lin Xu:** xulin508@whut.edu.cn
Wuhan University of Technology, China

Co-Organizer: **Lei Zuo:** leizuo@vt.edu
Virginia Tech

Symposium 4: Advances in Ground Vehicle Safety and Ergonomics

Topics include vehicle active safety such as adaptive cruise control, forward collision warning, lane departure warning or prevention, V2x technology developments, and passive safety developments of crashworthiness designs, accident reconstructions, restraint systems development & integration and robust structures for occupant and pedestrian protection during impacts (including under-body blast events). Other areas of research interest include the response and tolerance of the human body to vibration and impact, driver assistance systems, digital human modeling, human factors and driver behavior, critical technologies for future electronic certification of vehicle safety, safety concepts in autonomous vehicles, driver fatigue prediction, long distance driving comfort, biomechanics studies, experimental and computational analysis of ride comfort, and prediction of comfort levels.

Organizer: **Costin Untaroiu:** costin@vt.edu
Virginia Tech

Co-Organizer: **Alan Mayton:** amayton@cdc.gov
CDC/NIOSH/PMRD

Symposium 5: Advances in Vehicle Electrification and Powertrain Design

This symposium focuses on state-of-the-art research and development as well as future trends in the design, modeling, control, system integration and optimization of conventional and alternative energy propulsion and vehicular systems such as electric (EV), hybrid electric (HEV) and plug-in hybrid electric vehicles (PHEV), bio-fuel vehicles, LPG or CNG vehicles. Topics of interest also include energy storage and motor/power electronics components/systems, design and integration of the conventional and alternative energy propulsion and advanced vehicular systems, and state-of-the-art engine modeling and technology.

Organizer: **Joel Anstrom:** janstrom@engr.psu.edu
Penn State University

Co-Organizer: **Angelo Bonfitto:** angelo.bonfitto@polito.it
Politecnico di Torino(Technical University), Italy

Co-Organizer: **Venkat Ramakrishnan:** venkat.ramakrishnan@fcagroup.com
FCA Group

Symposium 6: Advances in Light Vehicles Design

Topics of the symposium are advanced modeling, simulation, testing, and identification methods for light vehicles including bicycles, motorcycles, three-wheeled vehicles, and small cars. The focus is on the performance and dynamic response of the whole system, on the mechanical properties of the subsystems of the vehicle (chassis, tires, suspensions) and on the man-machine interaction including passive response of the rider's body and active rider control. Topics of interest also include engines and electric motors for light vehicles, passive and mechatronic systems for the improvement of safety, and vibration energy harvesting devices.

Organizer: **Alberto Doria:** alberto.doria@unipd.it
University of Padova, Italy

Co-Organizer: **Luis Munoz:** lui-muno@uniandes.edu.co
Universidad de los Andes, Colombia

Symposium 7: Advances in Off-road, Agriculture, Military and Commercial Ground Vehicle Design and Testing

Topics include modeling and simulation, verification and validation using physical testing and/or virtual representations. Design, analysis and control methods for system/subsystem/components of commercial and military ground vehicles, which includes but are not limited to multi-body dynamics, terramechanics, vehicle performance evaluation metrics development, on- and off-road mobility and stability, convoy mobility for single- and multi-unit military or commercial vehicles, vehicle survivability in severe environments, occupant and payload safety (from blast and projectile armaments) during military events, etc. The vehicles may include logistical vehicles, military vehicles, heavy-duty for commercial/agricultural applications, all-terrain wheeled, tracked and unmanned ground vehicles. Progress and research in verification and validation studies of vehicle and sensor models and their virtual representation for unmanned and autonomous ground vehicle systems is in on- and off-road environments are also encouraged.

Organizer: **Ole Balling:** oba@eng.au.dk
Aarhus University, Denmark

Co-Organizer: **Peijun Xu:**

pxu@ebcoinc.com
Ebco Inc.

Symposium 8: Advances in Intelligent Vehicles

This symposium relates to state-of-the-art research and future trends for connected and autonomous vehicles. The topics include, but are not limited to: design of autonomous vehicles including advanced actuators and sensors; communications and networking (V2V, V2I, V2X) for connected vehicles; wireless technologies for connected vehicles; networked information processing, decision-making, and intelligent control; safe driving and accident avoidance; intelligent transportation, vehicle traffic modeling, decentralized congestion control, highway automation and platooning; cooperative driving and traffic management; vision and image processing; vehicle environment perception; pattern recognition for vehicles; automatic navigating control; driver behavior analysis and autonomous cooperative driving

Organizer:

Liangyao Yu: yly@tsinghua.edu.cn
Tsinghua University, China

Co-Organizer:

Guangqiang Wu: wuguangqiang@tongji.edu.cn
Tongji University Shanghai, China

A **Best Paper Award** and a **Student Best Paper Award** (for papers authored and submitted by student as the primary author) will be awarded for conference papers that best exemplify the research advances in ground vehicle engineering based on technical reviews and evaluations of symposium organizers. Each Best Paper Award consists of a **\$500 cash prize** per paper subject to availability of funds. Best paper Finalists are encouraged to submit an enhanced version to the ASME Journal of Mechanical Design.

The Vehicle Design Committee will continue the **William Milliken Lecture Award** at the 2022 AVT Conference. A separate second **Keynote** lecture and **Panel Session** is also planned.

The following is the publication schedule for IDETC/CIE 2022. It is also appears on the conference website with other pertinent information at: <https://event.asme.org/idehc-cie>

Draft Paper Submission Deadline

Feb. 14, 2022

Draft Paper Review Completed

March 21, 2022

Paper Author Notification of Decision

March 28, 2022

Extended Abstract Deadline (Technical Presentations)

April 11, 2022

Submission of Copyright Form

May 13, 2022

Final Paper Submission

May 16, 2022



IDETC-CIE 2022
International Design Engineering
Technical Conferences & Computers
and Information in Engineering
Conference

St. Louis Union Station Hotel, St. Louis Missouri

Conference: August 14 – 17, 2022

Exhibition: August 15 – 17, 2022

42ND ASME COMPUTERS AND INFORMATION ENGINEERING CONFERENCE (CIE)

CALL FOR PAPERS

<https://event.asme.org/IDETC-CIE>

The CIE Division is excited to put out all call for papers for the 42nd CIE Conference, to be held in August 14-17, 2022, St. Louis, Missouri, USA. All four CIE tracks are soliciting papers in all aspects of computer applications on experimental, numerical, or analytical studies, with emphasis on the highlighted topic areas.

TRACK SYMPOSIUMS

- Advanced Modeling and Simulation (AMS)
- Computer-Aided Product and Process Development (CAPPD)
- Virtual Environments and Systems (VES)
- Systems Engineering Information Knowledge Management (SEIKM)

TRACK SYMPOSIUM TOPICS

- AMS: Inverse Problems in Science and Engineering
- AMS: Computational Multiphysics Applications
- AMS: Uncertainty Quantification in Simulation and Model Verification & Validation
- AMS: Simulation in Advanced Manufacturing
- AMS: Material Characterization Methods and Applications
- AMS Panel (Call for proposals)
- CAPPD: Human in the Loop for Product Design, Training, and Manufacturing
- CAPPD: Digital Human Modelling for Design and Manufacturing
- CAPPD: Product and Process Design Automation for Industry 4.0
- CAPPD: Computational Fabrication for Product Design and Development
- SEIKM: Design Informatics
- SEIKM: Smart Manufacturing Informatics
- SEIKM: Systems Engineering and Complex Systems
- SEIKM: Knowledge Capture, Reuse, and Management
- SEIKM Special Session: Mission Engineering
- SEIKM Special Session: Smart Product-Service System
- VES: Technologies for VR, AR, and MR (Methods, Processes, and Applications)
- VES: Video Presentation Exhibit: Visualization and Virtual Demonstration of Prototypes and Simulations

CIE JOINT TOPICS

- AMS/CAPPD: Digital Twin: Advanced Human Modeling and Simulation in Engineering
- AMS/CAPPD/SEIKM: Design, Simulation and Optimization for Additive Manufacturing
- AMS/CAPPD/SEIKM: Artificial Intelligence and Machine Learning in Design and Manufacturing
- SEIKM/DTM: Human System Integration
- Graduate Student Poster Symposium

CIE PANELS

- AMS Panel (Call for proposals)
- SEIKM Panel: Digital Twin
- VES PANEL: Virtual, Augmented, and Mixed Reality Panel (Call for proposals)

Selected papers will be published in *ASME Journal of Computing and Information Science in Engineering* (JCISE). Five Best Papers will be awarded, including CIE Conference Best Paper and AMS, CAPPD, SEIKM and VES Best Paper.

CONFERENCE ORGANIZERS:

Conference Chair: Paul Witherell
National Institute of Standards & Technology (NIST),
Gaithersburg, MD 20899, USA, paul.witherell@nist.gov

Program Chair: Caterina Rizzi
University of Bergamo
Bergamo, Italy, caterina.rizzi@unibg.it

IMPORTANT DATES

- **Submission of Full-Length Paper for Review**
February 14, 2022
- **Paper Acceptance Notification**
March 28, 2022
- **Presentation Only and Poster Submission Deadline**
April 11, 2022
- **Final Paper Submission**
May 16, 2022

We invite you to join us on August 14th – 17th, 2022, at the 48th Design Automation Conference (DAC). The event aims to share state-of-the-art research, expand cooperation among participants, and promote all areas of design automation related to engineered mechanical systems. Papers in all areas of design automation are welcome, and papers with examples from industrial practice are strongly encouraged.

Note: except for a planned Special Session on the same topic of the keynote event, the DAC conference will not accept presentation-only contributions. Therefore, all presentations require a full-length abstract for consideration.

For more information on the IDETC Conferences, please visit the IDETC/CIE website:

<https://event.asme.org/IDETC-CIE>

Julián Norato

2022 DAC Conference Chair

Christopher McComb

2022 DAC Program Chair

Important Dates (2022)

February 14:	Abstract and Full-Length Manuscript Submission*
March 21:	Paper Reviews Completed
March 28:	Notification of Acceptance
May 13:	Submission of Copyright Form
May 16:	Author Registration Deadline
May 16:	Final Paper Submission*
August 14-17:	Conference

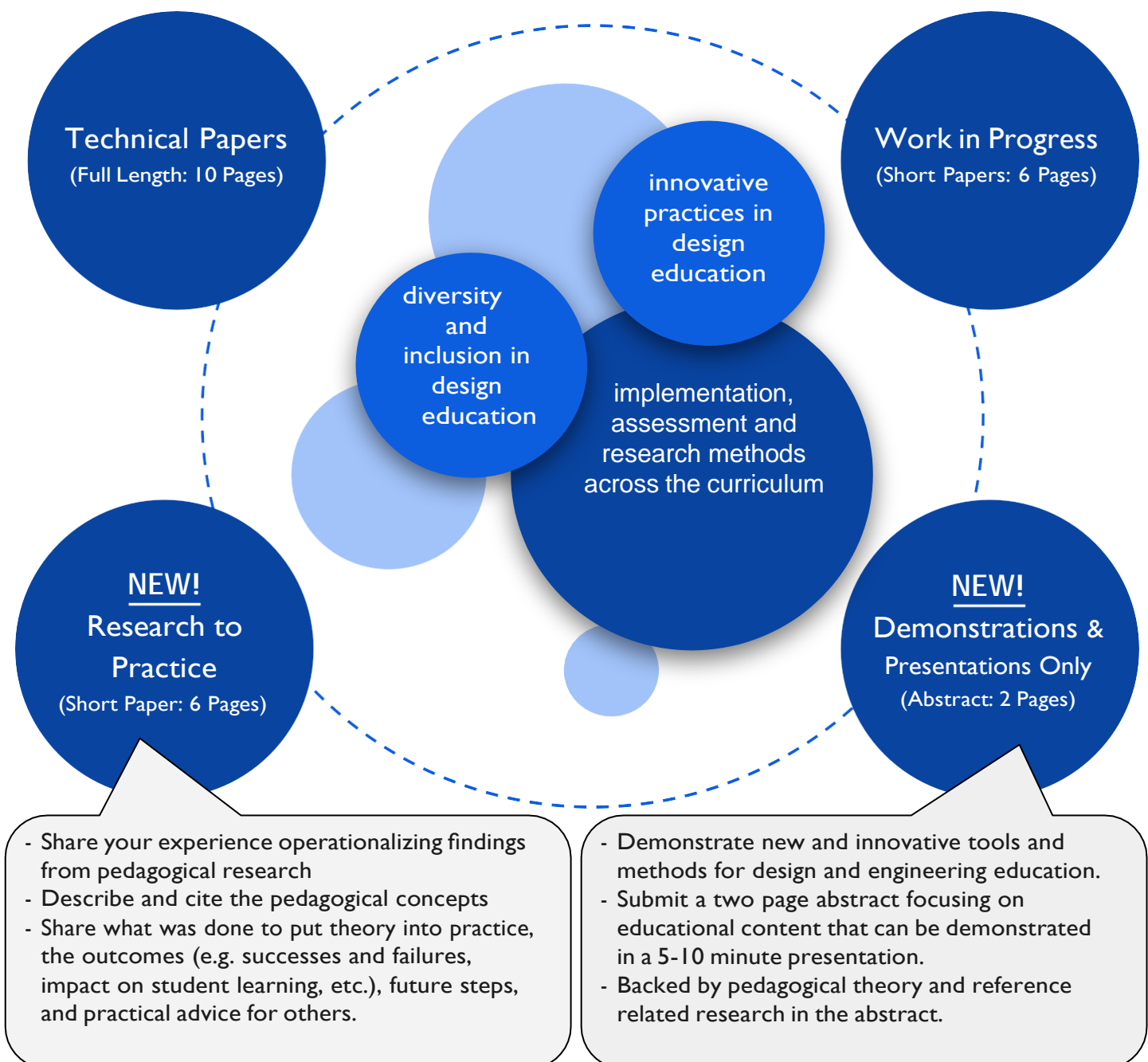
*Please note that submission deadlines are firm and are unlikely to change

DAC 2022 Session Topics:

DAC-1:	Control Co-Design
DAC-2:	Artificial Intelligence and Machine Learning for Challenging Real-World Problems in Design Automation
DAC-3:	Novel AI or ML Frameworks for Design or Systems Science
DAC-4:	Data-Driven Design
DAC-5:	Decision Making in Design
DAC-6:	Design and Optimization of Energy Systems
DAC-7:	Design for Additive Manufacturing
DAC-8:	Design for Market Systems
DAC-9:	Design for Resilience and Failure Recovery
DAC-10:	Design of Complex Systems
DAC-11:	Design of Engineering Materials and Structures
DAC-12:	Engineering for Global Development
DAC-13:	Geometric Modeling and Algorithms for Design and Manufacturing
DAC-14:	Metamodel-Based Design Optimization
DAC-15:	Multidisciplinary Design Optimization, Multi-objective Optimization, and Sensitivity Analysis
DAC-16:	Platform Architecture and Product Family Design
DAC-17:	Design Under Uncertainty
DAC-18:	Computational Design for Biomedical Applications
DAC-19:	Human-Artificial Intelligence Collaboration in Engineering System Design
DAC-20:	Design of Autonomous Systems
DAC-21:	Evolving Cyber-Physical-Social Systems
DAC-22:	Multi-fidelity Modeling Under Uncertainty
DAC-23:	Special Session with DFMLC: Modeling and Optimization for Sustainable Design and Manufacturing
DAC-24:	Signature Event: Keynote on The Role of Engineering Design in the Global Transition to a Circular Economy
DAC-25:	Poster Session on The Role of Engineering Design in the Global Transition to a Circular Economy

For detailed information on session topics, visit
www.designautomationconference.org

The Design Education Committee invites submissions from researchers, educators, and practitioners from higher ed, K-12, and industry to the 19th International Conference on Design Education (DEC) to be held as part of ASME's IDETC/CIE Conferences in St. Louise, MO. Authors are invited to submit full length technical papers, "short papers", and presentation only submissions in themes including but not limited to: implementation, assessment and research methods across the curriculum; diversity and inclusion in design education; and innovative practices in design education. This year we have added two new ways to participate. For more details about the DEC symposia see below and visit the DEC website: <https://bit.ly/ASMEdec>





IDETC-CIE 2022

International Design Engineering
Technical Conferences & Computers
and Information in Engineering
Conference

St. Louis Union Station Hotel, St. Louis, Missouri

Conference: August 14 – 17, 2022

Exhibition: August 15 – 17, 2022

Call for Papers: 27th Design for Manufacturing and the Life Cycle Conference

Dear colleagues, we invite you and your students to submit **full-length technical papers** and **presentation-only submissions** to the 27th Design for Manufacturing and the Life Cycle Conference (DFMLC) at the ASME 2022 IDETC & CIE Virtual Conferences. Submissions are invited for the following sessions.

- DFMLC-1: Integrated Product and Process Development
- DFMLC-2: Modeling and Optimization for Sustainable Design and Manufacturing (*Joint Session with the 48th Design Automation Conference*)
- DFMLC-3: Life Cycle Decision Making
- DFMLC-4: Design for Supply Chain and End Of Life Recovery
- DFMLC-5: Design for Manufacturing and Assembly
- DFMLC-6: Design for Additive Manufacturing
- DFMLC-7: Design for Quality, Reliability, and Cost
- DFMLC-8: Design of Product-Service Systems
- DFMLC-9: Design of Thermal and Energy Systems
- DFMLC-10: Recent Advances in Design for Manufacturing and the Life Cycle
- DFMLC-11: Design for Sustainable Product Use and User Behavior
- DFMLC-12: *Special Session: Design Tool Showcase*

More details on the submission process can be found at: <https://event.asme.org/IDETC-CIE>. The deadline for full-length paper submission is **February 14, 2022**. Selected high-quality conference papers submitted to DFMLC 2022 will be nominated for fast-track review and publication in the **ASME Journal of Mechanical Design Special Issue on “Selected Papers from IDETC 2022”**.

On behalf of the DFMLC Technical Committee,

Dr. Junfeng Ma, DFMLC 2022 Conference Chair, ma@ise.msstate.edu

Dr. Daniel Cooper, DFMLC 2022 Program Chair, drcooper@umich.edu

Dr. Paul Egan, DFMLC 2022 Special Session Chair, Paul.Egan@ttu.edu



ASME 2022 IDETC/CIE Conference 34th Design Theory and Methodology Conference

Call for Papers

Researchers and practitioners are invited to join us virtually August 14-17, 2022, for the 34th International Conference on Design Theory and Methodology (DTM). The conference will explore a variety of topics related to the design of mechanical systems and products. Conference themes are clustered around: Design Theory, Design Methods, Design People, and Design Practice. Papers in other areas of design theory are also welcome.

Joshua D. Summers
joshua.summers@utdallas.edu
2022 DTM Conference Chair

Vimal Viswanathan
vimal.viswanathan@sjsu.edu
2022 DTM Program Chair

- **Design Theory:** New Models, Constructs, and Explanations; New Impacting Trends Impacting
- **Design Methods:** Prototyping, Imagery, & Other Representations; Biologically Inspired Design; Creativity and Ideation
- **Design People:** Entrepreneurship & Teams; Designer/Human Behavior in Design; Design Decision Making
- **Design Practice:** Design of Complex Systems; Inclusive Design; Engineering for Global Development
- **SPECIAL SESSION:** Lightning Talks on New & Revisiting Directions



<https://event.asme.org/IDETC-CIE>

Submission: Feb. 14, 2022
Notified Acceptance: March 28, 2022
Copyright Submission: May 13, 2022
Final Submission: May 16, 2022

46th Mechanisms and Robotics Conference call for papers

The Mechanisms and Robotics Technical Committee of the ASME Design Engineering Division invites you to submit papers to the 46th Mechanisms and Robotics Conference, the premier international forum started since 1952 for the exchange of technical and scientific information on the theory and application of mechanical systems, mechanisms, and robotics. Topics span areas central to design and analysis of mechanical, mechatronic, and robotic systems, including kinematics, dynamics, novel mechanisms and robots, software systems, educational practices, and various applications. Papers are particularly encouraged from the areas in soft-, flexible- and human-safe robots, reconfigurable mechanisms and robots, origami-based systems, rehabilitation and medical robots, and exoskeleton/prosthesis design and development and mechanism-based metamaterials.

Submitted papers will be eligible for the Mechanisms and Robotics Committee Best Paper Award, Freudenstein Young Investigator Award, A. T. Yang Memorial Award in Theoretical Kinematics, and Compliant Mechanism awards. Authors of the strongest papers at the conference will also be invited to submit enhanced archival versions to an IDETC2022 Special Issue of the Journal of Mechanisms and Robotics.

Planned technical symposia for paper submissions are listed below.

- MR-1 Mechanism Synthesis & Analysis
- MR-2 Theoretical & Computational Kinematics
- MR-3 Compliant Mechanisms
- MR-4 Origami-Based Engineering Design
- MR-5 Motion Planning, Dynamics, and Control of Robots
- MR-6 Medical & Rehabilitation Robots
- MR-7 Novel Mechanisms, Robots & Applications
- MR-8 Student Mechanisms and Robot Design Competition
- MR-9 Special Early Career Session of Invited Presentations
- MR-10 Keynote for the 46th Mechanisms and Robotics Conference

Guangbo Hao, Guimin Chen, Dongming Gan

Conference organising committee



CALL FOR PAPERS

16th International Conference on Micro- and Nano-systems (MNS)

The Next Advances in MEMS

To be held in conjunction with the
ASME 2022 International Design Engineering
Technical Conferences
St. Louis, Missouri
August 14-17, 2022

Conference Chair:

Dr. Oliver M. Barham

US Navy, NSWC Indian Head Division

Email: oliver@olivermbarham.com

Conference Description

This conference, sponsored by the Technical Committee of Micro and Nano-systems (MNS), an integral part of the ASME Design Engineering Division, will provide researchers in industry, academia, and government a forum to exchange scientific and technical information related to recent developments and emerging issues in the design, mechanics, dynamics, control, and fabrication of micro- (MEMS) and nano-scale (NEMS) systems. Manuscripts are solicited from experimental, computational, and theoretical studies. Submissions from researchers both within and outside of the traditional mechanical engineering community are strongly encouraged to submit their work. Scheduled symposia in 2022 include:

MNS-1: Keynote Lecture

MNS-2: Micro/Nano Dynamics

MNS-3: Micro/Nano Bioengineering

**MNS-4: Micro/Nano Robotics and
Functional Materials**

**MNS-5: Micro/Nano IoT, Sensors and
Digital Computing**

**MNS-6: Micro/Nano Power Sources and
Storage**

Abstracts and Papers Submission

Draft conference papers (which include the expectation to present a technical presentation) submissions are due by **Feb. 14, 2022**. Manuscripts will be peer reviewed, authors will have opportunity to make edits, and accepted manuscripts will be published in the conference proceedings. Researchers interested in presenting their work without submitting a paper can submit an “extended abstract” for their talk, that is at least one page, and will not be published in the proceedings. Novel design ideas and early results will be considered for both technical papers and presentations. All submitted papers will automatically be considered for the Best Paper Award competition.

February 14: Draft paper submission deadline

March 21: Draft paper review completed

March 28: Paper author notification of decision

April 11: Extended abstract deadline

May 13: Submission of copyright form

May 16: Final paper submission

The full publication schedule is available at:

<https://event.asme.org/IDETC-CIE>



We cordially invite you to contribute to the **18th International Conference on Multibody Systems, Nonlinear Dynamics, and Control (MSNDC)**, to be held during the **ASME 2022 IDETC/CIE**, August 14–17, 2022 in St. Louis, MO.

The International Conference on Multibody Systems, Nonlinear Dynamics, and Control (MSNDC) is a premier meeting event for professional networking and research exchange across the multibody systems and nonlinear dynamics technical community. The conference facilitates the dissemination of fundamental research in the enabling disciplines as well as research into their application to engineered or naturally occurring mechanical systems across all length and time scales.

Event highlights:

- MSNDC accepts both full-length (**Technical Paper**) and presentation-only (**Technical Presentation**) submissions with Extended Abstracts
- All full-length papers will be considered for the **Best Paper Award Competition**
- A subset of the full papers will be selected for publication in a special issue of the ASME Journal of Computational and Nonlinear Dynamics
- There will be a **Student Paper Competition** for full-length papers
- MSNDC will feature a keynote lecture by the recipient of the **d'Alembert award**

List of Symposia & Submission Information:

ASME IDETC/CIE website: <https://event.asme.org/IDETC-CIE>

Looking forward to seeing you in St. Louis,

Pierpaolo Belardinelli
James Chagdes
Antonio Recuero
Radu Serban

2022 IDETC/CIE

International Design Engineering Technical Conferences
& Computers and Information in Engineering Conference

Power Transmission and Gearing (PTG)

August 14-17, 2022

St. Louis Union Station Hotel

St. Louis, MO, USA

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- The Power Transmission and Gearing (PTG) Committee of the American Society of Mechanical Engineers, Design Engineering Division invites you to participate in the **ASME 2022 Power Transmission and Gearing Conference**. The conference will be held in conjunction with the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conferences (IDETC/CIE) in **St. Louis Missouri on August 14-17, 2022**.

Power transmission and gearing researchers and engineers from around the world will be in attendance. The PTG Conference will provide attendees an opportunity to become familiar with the **latest research findings and applications that address critical engineering issues**.

- Authors and attendees are invited to participate in this premier international conference. This is a unique opportunity to disseminate your latest research findings to a global audience, and network with leading experts in the field. **Papers are solicited on all aspects of gear and power transmission technology** with a range of applications (aerospace, automotive, wind turbine, robotics and others).

Topics include but are not limited to:

- ▶ Gear Geometry
- ▶ Gear Analysis, Materials, Fatigue
- ▶ Gear Dynamics and Noise
- ▶ Gearbox Design, Reliability, and Diagnostics
- ▶ Gear Manufacturing
- ▶ Lubrication and Efficiency
- ▶ Bearings, Clutches, Couplings, and Splines
- ▶ Transmission Systems Including Novel Concepts

Visit the conference website at <https://event.asme.org/IDETC-CIE> to submit abstracts or papers, register, make hotel accommodations and find out more information.

Important Dates

Draft Paper

Feb. 14, 2022

Author Notification of Acceptance/Revision Requirements

March 28, 2022

Submission of Copyright Form

May 13, 2022

Author Registration

May 16, 2022

Submission of Final Paper

May 16, 2022

For More Information Contact

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**Tech Committee on Power Transmission and
Gearing (TC-PTG)**



ASME - IDETC - 2022

CALL FOR PAPERS

25th Reliability, Stress Analysis and Failure Prevention Conference (RSAFP)

ASME International Design Engineering Technical Conferences
St. Louis Union Station Hotel, St. Louis Missouri, USA

August 14-17, 2022

The ASME RSAFP Committee is sponsoring technical sessions on the general aspects of Reliability, Stress Analysis, and Failure Prevention with the inclusion of, **but not limited to**, the following topics: RSAFP in Design Methods and Analyses; RSAFP of Polymer, Composite, Additive Manufactured and Sustainable Materials; Stress and Failure Analysis and Modeling.

Possible sessions will include,

RSAFP in Design Methods and Analyses

RSAFP of Polymer, Composite, Additive Manufactured and Sustainable Materials

Stress and Failure Analysis and Modeling

Abstracts and Papers Submission:

Proceedings CDROM's are planned to be issued for the Congress. Prospective authors are asked to submit abstracts and full-length papers via the 2022 IDETC/CIE Webtool at: <https://event.asme.org/IDETC-CIE>

Important Dates

Draft Papers Due: Feb. 14, 2022

Authors Notified of Acceptance: March 28, 2022

Final Version of Papers Due: May 16, 2022

25th RSAFP Conference Organizer & Chair:

Dr. Erol Sancaktar, FASME, Professor Emeritus,
School of Polymer Science & Polymer Engineering
The University of Akron, Akron OH 44325
Email: erol@uakron.edu



IDETC-CIE 2022

**International Design Engineering Technical Conferences &
Computers and Information in Engineering Conference**

Call for Papers

34th Conference on Mechanical Vibration and Sound (VIB)

Papers are invited for the 34th Conference on Mechanical Vibration and Sound (VIB). VIB is a premier technical conference for the research and practice of vibration and sound engineering. An overall goal of the conference is to foster and promote the exchange of ideas and information among engineers and researchers in the vibration and sound community. The conference will be held at the St. Louis Union Station Hotel in St. Louis, Missouri, USA from August 14-17, 2022.

Contributions from a wide range of areas in vibration and sound research are sought. Past symposia have featured dynamics of MEMS and NEMS, Soft Material Dynamics, Waves in Solids and Metamaterials, Energy Capture and Harvesting, Vibrations of Rotating Machinery and Systems, Passive and Active Vibration Control Techniques, and Structural Damage Detection and Diagnostics, for example. Analyses based on theoretical, analytical, computational, and experimental methods, as well as their combinations, are welcome. Also welcome are papers that feature innovative linear vibration and stability analyses, studies related to nonlinear vibration and dynamics of systems, analyses of discrete and continuous models, novel analytical or computational approaches in vibration, and exciting applications encountered in applications.

VIB offers authors a choice between standard full-length paper with presentation and presentation only contributions. Full-length papers go through the peer review process and, if accepted, appear in the conference proceedings. They must be formatted according to [ASME format guidelines](#). Presentation only contributions require two-page extended abstracts (not published) upon submission.

VIB offers authors a premier destination for disseminating their technical work. Exceptional papers may receive journal quality recognition. This opens opportunities to publish in ASME journals with reduced paper processing timelines. VIB features a Best Student Paper competition with monetary prizes and recognition by ASME. A number of student activities are offered.

Important Dates

Submission of Full-Length Paper for Review: Feb. 14, 2022

Paper Acceptance Notification: March 28, 2022

Extended Abstract: April 11, 2022

Author Registration and Final Paper: May 16, 2022

For more information, please feel free to contact the conference organizers:

Peter Coffin
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Ph. 303-260-8182

Chris Cooley
Oakland University
VIB Program Chair
cooley@oakland.edu
Ph. 248-370-2659